

LOW DIELECTRIC CONSTANT MATERIALS AND PROCESSES

Abstract of the Disclosure

Chemical vapor deposition processes result in films having low dielectric constants when suitable chemical precursors are utilized. Preferred chemical precursors include siloxanes, (fluoroalkyl)fluorosiloxanes, (fluoroalkyl)silanes, (alkyl)fluorosilanes, (fluoroalkyl)fluorosilanes, alkylsiloxysilanes, alkoxysilanes, alkylalkoxysilanes, silylmethanes, alkoxysilylmethanes, alkylalkoxysilylmethanes, alkoxymethanes, alkylalkoxymethanes, and mixtures thereof. The precursors are particularly suited to thermal CVD for producing low dielectric constant films at relatively low temperatures, particularly without the use of additional oxidizing agents. Such films are useful in the microelectronics industry.

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